

WHAT IS CLAIMED IS:

1. A method of scheduling execution of a plurality of activities including the steps of:

5 estimating a duration of a new instance of each activity to be scheduled as a function of a measured duration of completed instances of the activity executed previously, and

10 adjusting the estimated duration according to the value of at least one attribute of the new instance of the activity.

2. The method according to claim 1, wherein the step of adjusting the estimated duration includes:

15 inducting a pattern model partitioning the completed instances of the activity into a plurality of classes according to the value of at least one corresponding attribute, each class defining an adjustment factor,

20 assigning the new instance of the activity to a corresponding class applying the pattern model, and

 calculating the adjusted estimated duration multiplying the estimated duration by the adjustment factor of the class assigned to the new instance of the activity.

25 3. The method according to claim 2, wherein the pattern model is represented by a decision tree having at least one decision node specifying an attribute test and a plurality of leaf nodes each one specifying a
30 corresponding class.

4. The method according to claim 3, further including the steps of executing the new instance of the activity, and selectively rebuilding the decision tree or revising the decision tree according to an actual duration of the executed new instance of the activity when a prediction error for the executed new instance of the activity reaches a threshold value.

5. The method according to claim 2, wherein the adjustment factors are set to a series of values from 0.1 to 10.

6. The method according to claim 5, wherein the adjustment factors are spaced in a non-uniform manner, a difference between two consecutive adjustment factors increasing with the value of the corresponding adjustment factors.

7. The method according to claim 1, wherein the at least one attribute of the new instance of the activity includes an indication of a planned time of execution and the at least one corresponding attribute of each completed instance of the activity includes an actual time of execution.

8. The method according to claim 1, wherein the activities consist of jobs of a batch processing.

9. A computer program directly loadable into a working memory of a computer for performing the method of claim 1 when the program is run on the computer.

5 10. A program product comprising a computer readable medium on which the program of claim 9 is stored.

10 11. A system for scheduling execution of a plurality of activities including means for estimating a duration of a new instance of each activity to be scheduled as a function of a measured duration of completed instances of the activity executed previously, and means for adjusting the estimated duration according to the value of at least one attribute of the new instance of the activity.

15 12. A system for scheduling execution of a plurality of activities including a first software module for estimating a duration of a new instance of each activity to be scheduled as a function of a measured duration of completed instances of the activity executed previously, and a second software module for adjusting the estimated duration according to the value of at least one attribute of the new instance of the activity.

20

25